

**Pt. 63, Subpt. IIII, Table 4**

**40 CFR Ch. I (7–1–13 Edition)**

**TABLE 4 TO SUBPART IIII OF PART 63—WORK PRACTICE STANDARDS—REQUIREMENTS FOR MERCURY LIQUID COLLECTION**

As stated in § 63.8192, you must meet the work practice standards in the following table:

You must collect liquid mercury from . . .	At the following intervals	When collecting the mercury, you must meet these requirements		
1. Open-top containers.	a. At least once each 72 hours.	i. If you spill liquid mercury during collection or transport, you must take the action specified in Table 3 to this subpart for liquid mercury spills and accumulations.	ii. From the time that you collect liquid mercury into a temporary container until the time that you store the liquid mercury, you must keep it covered by an aqueous liquid.	iii. Within 4 hours from the time you collect the liquid mercury, you must transfer it from each temporary container to a storage container that meets the specifications in Table 1 to this subpart.
2. Vessels, low point drains, mercury knock-out pots, and other closed mercury collection points.	a. At least once each week.	See 1.a.i through iii above.		
3. All other equipment.	a. Whenever maintenance activities require the opening of the equipment.	See 1.a.i. through iii above.		

**TABLE 5 TO SUBPART IIII OF PART 63—REQUIRED ELEMENTS OF FLOOR-LEVEL MERCURY VAPOR MEASUREMENT AND CELL ROOM MONITORING PLANS**

Your Floor-Level Mercury Vapor Measurement Plan required by § 63.8192(d) and Cell Room Monitoring Plan required by § 63.8192(g) must contain the elements listed in the following table:

You must specify in your plan . . .	Additional requirements
Floor-Level Mercury Vapor Measurement Plan	
1. Locations in the cell room where you will measure the level of mercury vapor.	The locations must be representative of the entire cell room floor area. At a minimum you must measure the level of mercury vapor above mercury-containing cell room equipment, as well as areas around the cells, decomposes, or other mercury-containing equipment.
2. Equipment or sampling and analytical methods that you will use to measure the level of mercury vapor.	If an instrument or other equipment is used, the plan must include manufacturer specifications and calibration procedures. The plan must also include a description of how you will ensure that the instrument will be calibrated and maintained according to manufacturer specifications.
3. Measurement frequency .....	Measurements must take place at least once each half day.
4. Number of measurements .....	At least three readings must be taken at each sample location and the average of these readings must be recorded.
5. A floor-level mercury concentration action level	The action level may not be higher than 0.05 mg/m <sup>3</sup> .

Environmental Protection Agency

Pt. 63, Subpt. IIIII, Table 6

You must specify in your plan . . .	Additional requirements
<b>Cell Room Monitoring Plan</b>	
1. Details of your mercury monitoring system.	Include some pre-plan measurements to demonstrate the profile of mercury concentration in the cell room and how the selected sampling locations ensure conducted representativeness.  Include a description of how you will keep records or other means to demonstrate that the system is operating properly.  Include the background data used to establish your level.
2. How representative sampling will be conducted	
3. Quality assurance/quality control procedures for your mercury monitoring system.	
4. Your action level .....	

TABLE 6 TO SUBPART IIIII OF PART 63—EXAMPLES OF TECHNIQUES FOR EQUIPMENT PROBLEM IDENTIFICATION, LEAK DETECTION AND MERCURY VAPOR

As stated in Tables 1 and 2 of Subpart IIIII, examples of techniques for equipment problem identification, leak detection and mercury vapor measurements can be found in the following table:

To detect . . .	You could use . . .	Principle of detection . . .
1. Leaking vent hoses; liquid mercury that is not covered by an aqueous liquid in open-top containers or end boxes; end box covers or stoppers, amalgam seal pot stoppers, or caustic basket covers not securely in place; cracks or spalling in cell room floors, pillars, or beams; caustic leaks; liquid mercury accumulations or spills; and equipment that is leaking liquid mercury.	Visual inspections	
2. Equipment that is leaking hydrogen and/or mercury vapor during inspections required by Table 2 to this subpart.	a. Auditory and visual inspections	
	b. Portable mercury vapor analyzer—ultraviolet light absorption detector.	A sample of gas is drawn through a detection cell where ultraviolet light at 253.7 nanometers (nm) is directed perpendicularly through the sample toward a photodetector. Elemental mercury absorbs the incident light in proportion to its concentration in the air stream.
	c. Portable mercury vapor analyzer—gold film amalgamation detector.	A sample of gas is drawn through a detection cell containing a gold film detector. Elemental mercury amalgamates with the gold film, changing the resistance of the detector in proportion to the mercury concentration in the air sample.
	d. Portable short-wave ultraviolet light, fluorescent background—visual indication.	Ultraviolet light is directed toward a fluorescent background positioned behind a suspected source of mercury emissions. Elemental mercury vapor absorbs the ultraviolet light, projecting a dark shadow image on the fluorescent background.
3. Level of mercury vapor in the cell room and other areas.	e. Portable combustible gas meter.	
	a. Portable mercury vapor analyzer—ultraviolet light absorption detector.	See Item 2.b.
	b. Portable mercury vapor analyzer—gold film amalgamation detector.	See Item 2.c.
	c. Permanganate impingement .....	A known volume of gas sample is absorbed in potassium permanganate solution. Elemental mercury in the solution is determined using a cold vapor adsorption analyzer, and the concentration of mercury in the gas sample is calculated.